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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/735,185 12/15/00 BROWN

C 800132-15

EXAMINER

PM82/0924

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GEILNER, J	
ART UNIT.	PAPER NUMBER.

3643

DATE MAILED:

09/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/735,186

Applicant(s)

BROWN, CLAUDE

Examiner

Jeffrey L. Gellner

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 15, 19-43 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7. 6) ☐ Other:

DETAILED ACTION

Acknowledgement is made of Applicant's IDS entered 18 June 2001.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22-29 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 22, line 4, the phrase "to inhibit a growth on said plant" is unclear because it is not known whether "a growth" refers to a fungus growing on the plant or the plant's own growth, such as a leaf.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechler (US 1,727,995) in view of Elliott et al. (US 2,602,388).

As to Claim 1, Lechler discloses an agricultural method (col. 3 lines 17-29) comprising generating steam in a first steam generator (a of Fig. 1); heating the saturated steam to at least

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300F (col. 1 lines 25-38) in a second steam generator (g of Fig. 1, col. 2 lines 82-92), the second generator would inherently remove substantially all the water droplets from the steam (col. 1 lines 42-45); and selectively delivering the superheated steam to kill undesired organisms (col. 1 lines 36-46). Not disclosed is using the method in a field. Elliott et al., however, disclose the use of steam to destroy organisms in a field (col. 1 lines 1-4). It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler by using in a field as disclosed by Elliott et al. so as to be capable of spot applications, which a hand held sprayer allows for, in a field.

As to Claim 2, Lechler as modified by Elliott et al. further disclose the use of a temperature above 250F (see Lechler col. 1 lines 25-38).

As to Claim 3, the limitation of delivering the steam to a depth of 2 inches is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler as modified by Elliott et al. by applying to a depth of 2 inches since many seeds are planted at a depth of 2 inches or less and killing pests at this depth prior to planting would assist germination.

As to Claim 4, Lechler as modified by Elliott et al. further disclose the use steam to destroy weeds (see Elliott et al. col. 3 lines 37-38).

As to Claim 5, Lechler as modified by Elliott et al. further disclose use on insects (see Elliott et al. col. 3 line 37-38).

As to Claim 6, Lechler as modified by Elliott et al. further disclose turning over the soil while steaming (see Elliott et al. Fig. 3).

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As to Claim 7, the limitation of using steam on nematodes is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler as modified by Elliott et al. by using on nematodes since they are well known soil pest of agricultural crops.

As to Claim 8, the limitation of using steam before planting a crop is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler as modified by Elliott et al. by using before planting a crop since it is well known the in the agronomic art to prepare soil before planting a crop.

As to Claim 9, Lechler discloses an agricultural method (col. 3 lines 17-29) comprising generating steam in a first steam generator (a of Fig. 1); heating the saturated steam to at least 300F (col. 1 lines 25-38) in a second steam generator (g of Fig. 1, col. 2 lines 82-92), the second generator would inherently remove substantially all the water droplets from the steam (col. 1 lines 42-45); and selectively delivering the superheated steam to kill undesired organisms (col. 1 lines 36-46). Not disclosed is using the method to kill nematodes in a field. Elliott et al., however, disclose the use of steam to destroy organisms in a field (col. 1 lines 1-4). Examiner takes official notice that it is notoriously old and well known in the agronomic art to destroy nematodes in soil prior to planting a crop. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler by using in a field as disclosed by Elliott et al. and to use the method to destroy nematodes prior to planting a crop so as to be capable of spot applications, which a hand held sprayer allows for, in a field and to destroy a well known pest.

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As to Claim 10, the field for planting of strawberries is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler as modified by Elliott et al. by using preplant in a strawberry field since it is well known in the horticultural art to repress damage by nematodes in strawberries to improve yield and quality.

Claims 11,12,14, 15, 19, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechler (US 1,727,995) in view of Yashugin (RU 2002400 C1).

As to Claims 11, 14, 15, 19, and 20, Lechler discloses an agricultural method (col. 3 lines 17-29) comprising generating steam in a first steam generator (a of Fig. 1); heating the saturated steam to at least 300F (col. 1 lines 25-38) in a second steam generator (g of Fig. 1, col. 2 lines 82-92), the second generator would inherently remove substantially all the water droplets from the steam (col. 1 lines 42-45). Not disclosed is using the method to partially defoliate a plant. Yashugin, however, discloses the use of hot gasses to defoliate a shrub, cotton (see abstract written in English). It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler by using to defoliate a plant as disclosed by Yashugin so as to be capable of spot applications and to avoid the use of chemicals (see Yashugin).

As to Claim 12, Lechler as modified by Yashugin further disclose the use of a temperature at about 250F to 500F(see Lechler col. 1 lines 25-38).

As to Claim 21, the limitation of application to a vine is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of

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Lechler as disclosed by Yashugin by using with grape plants since it is well known in the horticultural art to defoliate grape plants.

Claims 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechler (US 1,727,995) in view of Yashugin (RU 2002400 C1).

As to Claims 22, 24, and 25, Lechler discloses an agricultural method (col. 3 lines 17-29) comprising generating a flow of superheated steam (col. 3 lines 17-29). Not disclosed is using the method to inhibit a growth on an plant with a graft. Yashugin, however, discloses the use of hot gasses to inhibit a growth on a shrub with a graft, cotton (see abstract written in English). It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler by using to defoliate a plant as disclosed by Yashugin so as to be capable of spot applications and to avoid the use of chemicals (see Yashugin). (Note: Examiner questions whether cotton plants are ever grafted outside of possibly experimental research.)

As to Claims 23, 26, and 27, the limitations of using steam on a fruit tree, nut tree, or grape is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler as modified by Yashugin so as to use on horticultural crops since it is well known in the horticultural art to defoliate perennial plants to reduce disease.

As to Claims 28 and 29, the limitations of delivering steam adjacent the graft or at the root stock is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler as modified by Yashugin so as to direct the steam to a specific morphological part or organ since it is well known in the horticultural art to defoliate where the problem resides.

Claims 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechler (US 1,727,995) in view of Yashugin (RU 2002400 C1).

As to Claims 30, 32, 33, Lechler discloses an agricultural method (col. 3 lines 17-29) comprising generating a flow of superheated steam (col. 3 lines 17-29). Not disclosed is using the method to inhibit a growth on an plant. Yashugin, however, discloses the use of hot gasses to inhibit a growth near a graft on a shrub, cotton (see abstract written in English). It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler by using to defoliate a plant as disclosed by Yashugin so as to be capable of spot applications and to avoid the use of chemicals (see Yashugin). (Note: Examiner questions whether cotton plants are ever grafted outside of possible experimental research.)

As to Claims 31, 34, 35, 36, the limitations of using steam on a fruit tree, nut tree, cane, or grape is not disclosed. It would have obvious to one of ordinary skill in the art at the time of the invention to modify the method of Lechler as modified by Yashugin so as to use on horticultural crops since it is well known in the horticultural art to defoliate perennial plants to reduce disease.

Claims 37-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechler (US 1,727,995).

As to Claim 37, Lechler discloses an agricultural method (col. 3 lines 16-29) comprising generating a flow of superheated steam ((col. 3 lines 16-29). Not disclosed is delivering the flow of steam to a plant sufficient to fumigate it. It would have obvious to one of ordinary skill in the

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art at the time of the invention to modify the method of Lechler by using to fumigate a plant since it is well known in the horticultural art to fumigate plants to rid them of vermin, insect or otherwise.

As to Claims 38-43, the specific plant species is not disclosed in Lechler. Examiner takes official notice that it is notoriously old and well known in the horticultural art to fumigate horticultural species to rid them of vermin and pathogens, including mycelia.

Allowable Subject Matter

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16-18 are allowed.

Conclusion

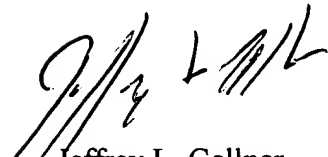
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Souslikoff, Ciman et al., and Aliev et al. disclose in the prior art various defoliators or weeding devices.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jeffrey L. Gellner whose telephone number is 703.305.0053. The Examiner can normally be reached Monday through Thursday from 8:30 am to 4:00 pm. The Examiner can also be reached on alternate Fridays.


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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Peter Poon, can be reached at 703.308.2574. The fax phone numbers for the Technology Center where this application or proceeding is assigned are 703.305.7687, 703.305.3597, and 703.306.4195.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.



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